Papers presented to the Botanical Club of the A. A. A. S.

For the first time in the history of the Club the daily program was printed as part of the daily program of the A. A. A. S., which proved a great convenience. The advantage of knowing what papers were upon the list, however, was largely neutralized by the miscellaneous introduction of business, which took much of the time, and made it impossible for either readers or auditors to judge when a paper would be called. The volume of the business transacted accounts for the comparatively small number of papers read, and the many left unread.

The following papers were read:

AUGUST 18TH, MORNING SESSION.

F. V. COVILLE: *Use of the terms range, locality, station and habitat.*—The confusion in the botanical use of these words was pointed out. A definition of each was submitted and their usage in accordance with the same illustrated. The discussion was participated in by Dr. C. R. Barnes, Dr. N. L. Britton, Mr. W. H. Seaman, Mr. B. E. Fernow, and Dr. Thomas Morong, and in the main supported the views put forth by the author.

THOMAS MORONG: *Travels in Paraguay, and its flora.*—The author prefaced his paper by saying that when in Paraguay he had received the expression of good will and sympathy sent by the Club in session at Toronto in 1889, and he now desired at the first opportunity he had had, to specially thank the Club for its courtesy, and to further show his appreciation he had prepared the present paper, briefly giving an outline of his travels. The author then read a very interesting account of the territory traversed, the perils and interruptions encountered, and especially of the nature of the vegetation. Drs. Rusby and Britton added some information, particularly in regard to the dangers of the trip and its happy termination.

L. M. UNDERWOOD: *A variety of Polypodium vulgare, new to America.*—This much altered form was found on Mohawk Mt., Conn., and was believed to be worthy the rank of a variety. Specimens were shown. The author took the opportunity to exhibit specimens of Onoclea sensibilis, in which the sterile fronds had been destroyed, and the later-appearing fertile fronds had unrolled, taking on a shape intermediate between the usual sterile and fertile fronds, and becoming as-

similatively active. This form, the so-called var. obtusilobata, he believed always to arise from injury to the vegetative fronds of the plant, and to be in no wise due to hybridity.

AUGUST 18TH, AFTERNOON SESSION.

F. B. MAXWELL: *Symbiotic growths in the roots of Ranunculaceæ.*

W. T. SWINGLE: *Some rare and interesting fungi from Florida.*—Specimens were shown and a description of the development, so far as known, was given of new parasites of more than usual interest. An ascomycetous species, in some respects resembling Claviceps, attacked and totally destroyed the inflorescence of Cenchrus tribuloides.

AUGUST 19TH, MORNING SESSION.

THOMAS MORONG: *Observations upon certain species of Asclepiadaceæ as insect traps.*—The conclusion was reached that the parts holding the insect were sensitive, and were brought firmly together by the irritation due to the presence of the insect's proboscis. The author also took the opportunity to exhibit fresh specimens of his Nuphar rubrodiscum, which, upon further study, he still believed to be a good species. If it were to be degraded to a variety, he thought it should go under N. Kalmianum, and not under N. advena, as in the last edition of Gray's Manual.

O. F. COOK: *General notes upon the flora of Liberia.*—The general topography, climate and appearance of the vegetation were described. It is moist and warm the year round, there being no true dry season. Coniferæ are entirely absent. Aquatic plants and mosses are scarce, but hepatics are wonderfully abundant, both in species and individuals. A tree-like lycopod, 8 to 10 feet high, is a common and beautiful object. Agaricini and Polyporei are very common, and of most bewildering complexity of forms. Gasteromycetes are rare, and parasitic fungi of all kinds almost wholly absent. Even the cultivated plants are without rusts, smuts, mildews or leaf-spots.

AUGUST 19TH, AFTERNOON SESSION.

No papers were read.

AUGUST 22D, MORNING SESSION.

MRS. E. G. BRITTON: *On the proposed handbook of mosses of Eastern America.*—Drawings prepared to illustrate this work were exhibited and the general plan of the work described.

B. D. HALSTED: *Weeds and weed roots.*—Photographs of the plants described in his "Century of American Weeds," and also of the root systems of classified groups of these weeds were shown.

F. V. COVILLE: *The re-discovery of Juncus Cooperi.*

N. L. BRITTON: *The North American Amelanchiers.*—There appear two well marked species along the eastern coast: A. Canadensis, an upland form with birch-like leaves, and A. spicata, a swamp form of smaller growth and more spicate inflorescence. These do not appear to intergrade, but their western range and variations are not yet well known. Beside these two, the other species of the genus were briefly described and illustrated with herbarium specimens. The genus is believed to contain seven American species. Material for study, especially from the interior, is solicited.

J. C. ARTHUR: *A new form of root cage.*—This consists essentially of two glass plates held about an eighth of an inch apart by removable metal clips, between which the soil is placed and the plants grown. The glass plates are so close together that nearly or quite all the roots may be seen from one side or the other during the whole period of growth. The glass cage is set in a convenient zinc trough for holding water, and the roots protected from light by zinc sides. It is designed for the study of geotropism, the relation of roots to soils, etc.

N. L. BRITTON: *The botanical garden movement in New York.*—The present very favorable condition of the project for a New York garden was outlined, and the opinion given that it would be established in a year or two, and under favorable regulations for its scientific control. Dr. E. F. Smith expressed the gratification felt by all botanists that a garden of such size and prospective value was soon to be added to the few at present in America.

L. M. UNDERWOOD: *A few additions to the hepatic flora of the Manual region.*

AUGUST 22D, AFTERNOON SESSION.

MRS. E. G. BRITTON: *On the genus Campylopus in North America.*—After a general account of the genus, the author spoke of a new species, *C. Millspaughi*, which has been separated from *C. flexuosus*, with abundant material for distribution. Two other new species were mentioned, and drawings and specimens exhibited.

A. A. CROZIER: *Note on a recent outbreak of peach yellows near Ann Arbor, Michigan.*—Described isolated outbreaks of the disease, and its gradual spread from centers of infection, in such manner that the theory of its contagious nature was well borne out.

W. P. WILSON: *Some observations on Epigæa repens.*—This species, as well known, is polymorphic. It appears to have once been trimorphic, but now possesses all intermediate forms. The female flowers have no pollen, and usually no anthers, and sometimes even no trace of stamens. The male flowers are without stigmas. The staminate and pistillate plants are so distinct in appearance as to be told at a distance. The female form is the more vigorous and predominant, but seed production is rare. Prof. Halsted called attention to the fact that there was only one size of pollen.

N. L. BRITTON: *Notes on some species of Cratægus.*—The forms of this genus are many of them difficult to distinguish, and more material and study is needed. *C. flabellata* Bosc., an extremely rare form from Canada, and *C. glandulosa*, from Delaware, with large and abundant glands upon the inflorescence, need especial attention.

AUGUST 23D, AFTERNOON SESSION.

MRS. H. L. WOLCOTT: *Observations on the ripening of the seeds of Cuphea.*—Attention was called to a cultivated variety with large flowers, which pushed the placenta laterally through the walls of the ruptured ovary and calyx tube, bringing the immature seeds into the air to ripen. Dr. Britton mentioned that the adaptation also occurred in Cuphea viscosissima.

CHAS. MOHR: *Notes on the mountain flora of northern Alabama.*—This paper will soon appear in *Garden and Forest.*

The following papers still remained upon the program unread at the final adjournment:

A. S. HITCHCOCK: *Notes on some Kansas weeds.*
W. W. BAILEY: *Notes on the flora of Block Island.*
L. H. PAMMEL: *Notes on the distribution of a few plants.*
L. H. PAMMEL: *Phaenological notes for 1892.*
THEO. HOLM: *Notes on terminology.*
MRS. E. G. BRITTON: *On the genus Ditrichum in North America with one Western species and corrections for two Eastern species.*

THOMAS MORONG: *Notes upon a revision of the North American Naidaceæ.*

M. B. WAITE: *Notes on some pear and apple diseases.*

E. S. GOFF: *Modifications of the tomato plant resulting from seed selection.*

MRS. E. G. BRITTON: *Some of the rare mosses of White Top and vicinity recently collected on a trip to southwestern Virginia.*

J. C. ARTHUR: *Galvanotropism.*

A. A. CROZIER: *A botanical terminology.*

MRS. E. G. BRITTON: *A proposed collection of mosses of New York state for the Columbian Exposition.*

W. P. WILSON: *Climbing habit of Tillandsia usneoides.*

O. F. COOK: *Some general questions in the classification of Myxomycetes.*

J. M. COULTER: *North American Cacti.*

L. H. BAILEY: *Cultivated species of Brassica.*

P. H. ROLFE: *Notes on the distribution of plants in Florida.*

L. H. PAMMEL: *Notes on some fungi common during the season of 1892 at Ames, Iowa.*

BRIEFER ARTICLES.

Polygonum persicarioides HBK. — According to Hemsley (Biol. Cent. Am. III, 34) the range of this plant is from Mexico to Chili and Peru. It is represented in the National Herbarium by the Wilkes' Expedition plant from Lima, Peru; by an unnamed plant collected by Botteri near Orizaba, Mexico, and numbered 1163; and by three plants that had been referred to *Polygonum persicaria* L., viz., Palmer's no. 137, collected in 1885 in S. W. Chihuahua, Mex.: Palmer's no. 211, collected in 1887 near Angeles Bay, Lower California; and the Mexican Boundary Survey plant no. 1183, collected in the valley of the Rio Grande, below Donna Ana, N. Mex. Recently Mr. H. Wurzlow sent this species from Industry, Austin Co., Texas, which extends its range into the United States.

All these plants mentioned agree essentially with the description in HBK., Gen. Pl. II, 179, with some exceptions. First, the leaves are not glabrous below, but *above;* while *below* they are "beset with numerous minute hairs." I may add: midrib below and margin beset